

CLEANING OF CATHODE-RAY TUBE DISPLAY

By

Shiyou Pei,

Colin D. Stanners, and

Frederick K. Byers

ABSTRACT

Inert gas provided at a suitable level inside a hermetically sealed cathode-ray tube display, typically of the flat-panel type, enables the display's electron-emitting device (20) to be automatically cleaned during display operation subsequent to final display sealing. Upon being struck by electrons emitted by the electron-emitting device, atoms (68) of the inert gas ionize to produce positively charged ions (124) which travel backward to the electron-emitting device and dislodge overlying contaminant material (130 and 132). A getter (26) collects dislodged contaminant. A reservoir (28) provides inert gas to replace inert gas lost during the cleaning process.